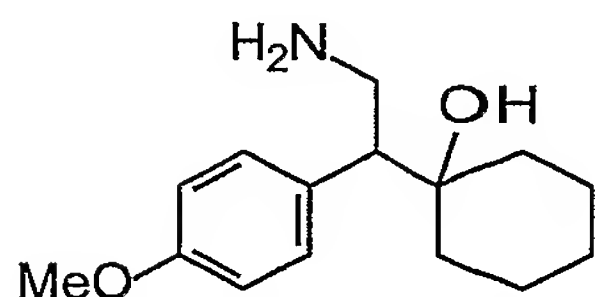


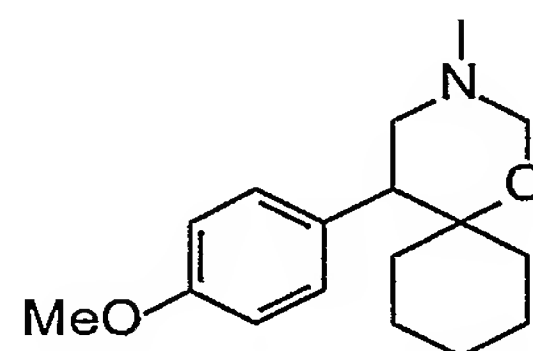
CLAIMS

1. Process for preparing venlafaxine which comprises

- (a) converting a venlafaxine precursors selected from the group of *N,N*-didesmethyl venlafaxine of formula (I), a salt thereof, spiro venlafaxine of formula (II) and a salt thereof



(I)



(II)

to venlafaxine, wherein the conversion is carried out in the presence of a salt of formic acid which is selected from the group of a metal salt or an ammonium salt of formic acid, and

- (b) optionally reacting the venlafaxine with an acid to prepare an acid addition salt of venlafaxine.

2. Process according to claim 1, wherein the molar ratio of the salt of formic acid to the venlafaxine precursor is

0.3-10 to 1.

3. Process according to claim 2, wherein the molar ratio is 0.5-3 to 1.

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4. Process according to any one of claims 1 to 3, wherein the metal salt of formic acid is an alkali or earth alkaline metal salt of formic acid.

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5. Process according to claim 4, wherein the alkali metal salt of formic acid is a Na, K or Li salt.

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6. Process according to any one of claims 1 to 5, wherein in step (a) *N,N*-didesmethyl venlafaxine (I) or a salt thereof is converted to venlafaxine in the presence of formaldehyde and formic acid .

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7. Process according to claim 6, wherein in step (a) the *N,N*-didesmethyl venlafaxine (I) is used in form of its HCl addition salt.

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8. Process according to claim 6 or 7, wherein in step (a) the conversion is effected in the presence of also an alkali metal or earth alkaline metal hydroxide or  $\text{NH}_4\text{OH}$  in such an amount that it forms in-situ the salt of formic acid.

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9. Process according to claim 8, wherein the alkali metal hydroxide is NaOH which forms in-situ Na formiate.

10. Process for preparing venlafaxine hydrochloride of form I, wherein venlafaxine hydrochloride of form I is crystallized from a solution of venlafaxine hydrochloride in an organic solvent which solvent contains isopropyl acetate and/or cyclohexane.
11. Process according to claim 10, wherein the crystallization is effected at a temperature of the solution which is equal or greater than 30°C below the boiling temperature of the solution.
12. Process according to claim 11, wherein the crystallization is effected at about the boiling temperature of the solution.
13. Process according to any one of claims 10 to 12, wherein the solution of venlafaxine hydrochloride is prepared by reacting venlafaxine with aqueous HCl.
14. Process according to any one of claims 10 to 13, wherein the water content of the solution of venlafaxine hydrochloride is less than 3 % by weight and preferably less than 1.5 % by weight.
15. Process according to claim 14, wherein the water content has been achieved by subjecting the solution to azeotropic distillation.
16. Process according to claim 10, wherein the solution of venlafaxine hydrochloride is prepared by reacting venlafaxine with a solution of HCl in an alcohol.

17. Process according to claim 16, wherein the alcohol is methanol, ethanol and/or isopropanol.

18. Process according to claim 16 or 17, wherein venlafaxine hydrochlorid of form I is added to the venlafaxine.

19. Process according to claim 18, wherein venlafaxine hydrochloride of form I is added in an amount of up to 10 % by weight, based on venlafaxine.

20. Process according to any one of claims 16 to 19, wherein crystallization is effected at a temperature of the solution of venlafaxine hydrochloride which is about 20°C.

21. Process for preparing venlafaxine hydrochloride of form I, wherein

(a) a solution of venlafaxine in an organic solvent is reacted with aqueous HCl, and

(b) the water content of the resulting solution of venlafaxine hydrochloride is adjusted to less than 3 % by weight and preferably less than 1.5 % by weight, and

(c) the venlafaxine hydrochloride of form I is crystallized.

22. Process according to claim 21, wherein the adjustment of the water content in step (b) is effected by subjecting the solution to an azeotropic distillation.

23. Process according to any one of claims 10 to 22, wherein the prepared venlafaxine hydrochloride of form I has an

average particle size of less than 50µm, preferably an average particle size in the range of 10 to 40 µm.

24. Process according to any one of claims 10 to 23, wherein  
5 the venlafaxine has been prepared by the process according to any one of claims 1 to 9.

25. Venlafaxine hydrochloride of form I which is obtainable  
by the process according to any one of claims 10 to 24.

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26. Venlafaxine hydrochloride of form I according to claim  
25 which has a purity of more than 99.5 area %  
determined by HPLC.